Port of Houston Authority
Sediment Sampling Requirements

One sediment core should be taken for approximately every 500 linear feet over the dredge prism and represent a maximum sediment volume of 5,000 cubic yards.

Outfalls should have sediment samples obtained as representative of that area.

Core samples should be at least as great as the proposed dredge depth. Sediment samples can be homogenized, for example a four foot core can result in one sediment sample and a nine foot core would become two sediment samples.

The Port of Houston Authority is available to review sampling plans and locations prior to field activities, if necessary.

A list of sediment sampling consultants and contractors will be provided upon request.

The table below lists the required sediment sample analytical constituents and parameters.

The Port of Houston Authority contracts its analytical sediment sampling to the following laboratories, which are familiar with requirements and able to meet parameters:

ALS Laboratory Group, Shannon Tyrell/Sally Roan: 281-530-5656
TestAmerica, Joe Espinosa: 713-690-4444

Upon the completion of sediment sampling activities and analysis, an interested party must submit a Sampling Analysis Plan with location map (including GIS coordinates for sample locations) and analytical data to the Port of Houston Authority Environmental Affairs Department for approval/acceptance into a confined disposal facility.

If you have any questions on your sediment sampling activities and PHA policies, please contact Nicole Hausler at 713-670-2683.

Port of Houston Authority

Sediment Sampling

Listing of Chemicals of Concern

(as of 6/1/09)

Chemical	CAS Number [1]	Sediment Reporting Limit Required for Comparison to Ecological Screening Thresholds[(3)]	Analysis Method
CONVENTIONALS			
Total Solids (%)			Pg.17 (2)
Total Volatile Solids (%)			Pg.20 (2)
Total Organic Carbon (%)			DOE (3)
Grain Size			Modified ASTM with Hydrometer
METALS (mg/kg)			
Antimony	7440-36-0	0.3	GFAA [6]
Arsenic	7440-38-2	16	GFAA
Cadmium	7440-43-9	0.7	GFAA
Chromium	7440-47-3	3.0	GFAA
Copper	7440-50-8	36	ICP [7]
Lead	7439-92-1	38	ICP
Mercury	7439-97-6	0.3	7471
Nickel	7440-02-0	28	ICP
Silver	7440-22-4	1.3	GFAA
Zinc	7440-66-6	80	ICP
ORGANOMETALLIC COMPOUNDS (mg/kg)			
Tributyltin	56573-85-4	0.1	
ORGANICS (mg/kg)			
Total LPAH			
Naphthalene	91-20-3	0.84	8270
Acenaphthylene	208-96-8	1.2	8270
Acenaphthene	83-32-9	20	8270
Fluorene	86-73-7	30	8270
Phenanthrene	85-01-8	3.0	8270
Anthracene	120-12-7	0.15	8270
2-Methylnaphthalene	91-57-6	0.84	8270
Total HPAH			
Fluoranthene	206-44-0	1.2	8270
Pyrene	129-00-0	1.2	8270
Benz(a)anthracene	56-55-3	1.2	8270
Chrysene	218-01-9	1.2	8270
Benzofluoranthenes (b+k)	205-99-2 207-08-9	1.2	8270
Benzo(a)pyrene	50-32-8	1.2	8270
Indeno(1,2,3-c,d)pyrene	193-39-5	1.2	8270
Dibenz(a,h)anthracene	53-70-3	1.2	8270

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Benzo(g,h,i)perylene	191-24-2	1.2	8270
Chlorinated Hydrocarbons			
1,3-Dichlorobenzene	541-73-1	1.5	8260
1,4-Dichlorobenzene	106-46-7	1.5	8260
1,2-Dichlorobenzene	95-50-1	1.5	8260
1,2,4-Trichlorobenzene	120-82-1	1.5	8270
Hexachlorobenzene (HCB)	118-74-1	1.5	8270
Phthalates			
Dimethyl phthalate	131-11-3	5.0	8270
Diethyl phthalate	84-66-2	5.0	8270
Di-n-butyl phthalate	84-74-2	5.0	8270
Butyl benzyl phthalate	85-68-7	5.0	8270
Bis(2-ethylhexyl) phthalate	117-81-7	5.0	8270
Di-n-octyl phthalate	117-84-0	5.0	8270
Phenols			
Phenol	108-95-2	2.5	8270
2-Methylphenol	95-48-7	2.5	8270
4-Methylphenol	106-44-5	2.5	8270
2,4-Dimethylphenol	105-67-9	2.5	8270
Pentachlorophenol	87-86-5	2.5	8270
Miscellaneous Extractables			
Benzyl alcohol	100-51-6	NA	8270
Benzoic acid	65-85-0	37	8270
Dioxin (Total List as 2,3,7,8 TCDD)			8290
Dibenzofuran	132-64-9	NA	8270
Hexachloroethane	67-72-1	0.034	8270
Hexachlorobutadiene	87-68-3	0.0074	8270
N-Nitrosodiphenylamine	86-30-6	20	8270
Volatile Organics			
Trichloroethene	79-01-6	5.0	P&T
Tetrachloroethene	127-18-4	0.10	P&T
Ethylbenzene	100-41-4	1.5	P&T
Total Xylene (sum of o-, m-, p-)	95-47-6 108-38-3 106-42-3	5.0	P&T
Pesticides			

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Chemical	CAS Number [1]	Sediment Reporting Limit Required for Comparison to Ecological Screening Thresholds[(3)]	Analysis Method
Total DDT (sum of 4,4'-DDD, 4,4'-DDE and 4,4'-DDT)	72-54-8 72-55-9 50-29-3	0.5	--
Aldrin	309-00-2	0.003	8081[12]
Alpha-Chlordane	12789-03-6	0.0015	8081
Dieldrin	60-57-1	0.00094	8081
Heptachlor	76-44-8	0.035	8081
Gamma-BHC (Lindane)	58-89-9	0.0025	8081
Total PCBs	---	2.5[2]	8081

Source: USACE

[1] Chemical Abstract Service Registry Number.

[2] This value is normalized to total organic carbon, and is expressed in mg/kg (TOC normalized)

[3] Some of these values should be adjusted if there is a concern regarding potential beneficial use of groundwater. Refer to TCEQ groundwater screening levels. Analytical testing results should be reported on a dry weight basis.